

2004 Water Quality Assessment (Final) - Category 5 Listings for WRIA 11

WRIA	Listing ID	Category	98 List?	Waterbody Name Basis	Location Information				Parameter	Remarks	Medium
11	6329	5	Y	CLEAR LAKE Data Collected by the Thurston County and Dept. of Ecology (submitted by Sue Davis on 10/30/97) show eutrophic conditions and impacts to recreation caused by severe algae blooms. Completed Phase I State Clean Lakes Restoration Project in 1994: Tacoma-Pierce County Health Department, 1994. Sumioka and Dion (1985) show a summer epilimnetic total phosphorus concentration of 20 ug/L from samples collected in 1981 which does not exceed the water quality standards nutrient criterion for the Puget Lowlands Ecoregion.	650HOS	16N	03E	31	Total Phosphorus		Water
11	22174	5	N	EAST CREEK Gifford Pinchot National Forest unpublished data (submitted by Claire Lavendel on 16 December 2002) shows a 7-day mean of daily maximum value of 16.5 degrees C from continuous measurements collected during 2002 at the station called 'East Creek near Forest Boundary'.	JT45YU	6.952	14N	04E	12	Temperature	Water
11	8680	5	Y	HARTS LAKE Singleton, 1983, Eutrophic conditions causing fish kills and hypolimnetic anoxia. O'Neal et al. (2001) concludes that designated uses are not being supported. Sumioka and Dion (1985) show a summer epilimnetic total phosphorus concentration of 442 ug/L from samples collected in 1981 which exceeds the water quality standards nutrient criterion for the Puget Lowlands Ecoregion.	240QMC	16N	03E	07	Total Phosphorus		Water
11	22177	5	N	LITTLE NISQUALLY RIVER Gifford Pinchot National Forest unpublished data (submitted by Claire Lavendel on 16 December 2002) shows a 7-day mean of daily maximum value of 17 degrees C from continuous measurements collected during 2002 at the station called 'Little Nisqually River above Wildcat Creek'.	UL30WE	5.892	15N	04E	33	Temperature	Water
11	22180	5	N	LITTLE NISQUALLY RIVER, W.F. Gifford Pinchot National Forest unpublished data (submitted by Claire Lavendel on 16 December 2002) shows a 7-day mean of daily maximum value of 17.7 degrees C from continuous measurements collected during 2002 at the station called 'West Fork Little Nisqually River above confluence with Lake Creek'.	WS70LK	3.262	14N	04E	20	Temperature	Water
11	22181	5	N	LITTLE NISQUALLY RIVER, W.F. Gifford Pinchot National Forest unpublished data (submitted by Claire Lavendel on 16 December 2002) shows a 7-day mean of daily maximum value of 18.1 degrees C from continuous measurements collected during 2002 at the station called 'West Fork Little Nisqually River above confluence with Winston Creek'.	WS70LK	1.422	14N	04E	17	Temperature	Water

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11	34847	5	N	MASHEL RIVER	KU71FS	0	16N	04E	29	Temperature	Water
Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR06 show a 7-day mean of maximum daily temperature of 19 degrees C, with a maximum daily temperature of 20.2 degrees C from continuous measurements collected in 1993. Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR06 show a 7-day mean of maximum daily temperature of 22.2 degrees C, with a maximum daily temperature of 23.9 degrees C from continuous measurements collected in 1994. Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR06 show a 7-day mean of maximum daily temperature of 20.6 degrees C, with a maximum daily temperature of 21.3 degrees C from continuous measurements collected in 2001.											
11	34848	5	N	MASHEL RIVER	KU71FS	7.771	16N	04E	23	Temperature	Water
Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR52 show a 7-day mean of maximum daily temperature of 19.4 degrees C, with a maximum daily temperature of 20.7 degrees C from continuous measurements collected in 1993. Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR52 show a 7-day mean of maximum daily temperature of 24.1 degrees C, with a maximum daily temperature of 25.8 degrees C from continuous measurements collected in 1994. Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR52 show a 7-day mean of maximum daily temperature of 23.7 degrees C, with a maximum daily temperature of 24.4 degrees C from continuous measurements collected in 1996. Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR52 show a 7-day mean of maximum daily temperature of 22.5 degrees C, with a maximum daily temperature of 23.7 degrees C from continuous measurements collected in 1997.											
Nisqually River Education Project station Mashel River @ Eatonville show no excursions beyond the criterion from measurements collected in 2001 and 2002.											
11	34849	5	N	MASHEL RIVER	KU71FS	12.115	16N	05E	18	Temperature	Water
Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR75 show a 7-day mean of maximum daily temperature of 16.8 degrees C, with a maximum daily temperature of 17.6 degrees C from continuous measurements collected in 1993. Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR75 show a 7-day mean of maximum daily temperature of 20.3 degrees C, with a maximum daily temperature of 22 degrees C from continuous measurements collected in 1994. Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR75 show a 7-day mean of maximum daily temperature of 21.6 degrees C, with a maximum daily temperature of 22.6 degrees C from continuous measurements collected in 1996. Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR75 show a 7-day mean of maximum daily temperature of 19.9 degrees C, with a maximum daily temperature of 21.2 degrees C from continuous measurements collected in 1997.											
11	34850	5	N	MASHEL RIVER	KU71FS	14.736	16N	05E	17	Temperature	Water
Nisqually Indian Tribe unpublished data (submitted by Sayre Hodgson on 6 February 2003) at RM MR85 show a 7-day mean of maximum daily temperature of 19.6 degrees C, with a maximum daily temperature of 20.7 degrees C from continuous measurements collected in 1994.											

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DO to	11	7529	5	Y	MCALLISTER CREEK					LD26OX	2.571	18N	01E	38	Dissolved oxygen	Water
	Data Collected by Thurston County (submitted by Sue Davis on 10/30/97) show 12 excursions beyond the criterion out of 12 samples (100%) collected at McAllister Creek RM 2.5 (Interstate 5) in 1995-1996.										During the assessment of data it was determined that WQ Policy 1-11 (updated 9/03) was overly restrictive for the number of years of data excursions needed to list for D.O. impairments. Based on a review of monitoring studies for					
											statewide, it was determined that multiple (3 or more) excursions for at least two years of monitoring should be used as an alternative indicator that a waterbody continues					
											be impaired. (Braley, ECY/WQP, 2003)					
	11	7532	5	Y	MCALLISTER CREEK					LD26OX	3.548	18N	01E	37	Dissolved oxygen	Water
Data Collected by the Nisqually Tribe (submitted by Sue Davis on 10/30/97) show 27 excursions beyond the criterion out of 41 samples (66%) collected at McAllister Creek RM 3.1 between 1993 and 1996.																
	11	7530	5	Y	MCALLISTER CREEK					LD26OX	2.571	18N	01E	38	Fecal Coliform	Water
Data Collected by Thurston County (submitted by Sue Davis on 10/30/97) show a geometric mean of 74 org/100mL with 33% exceeding te percentile criterion out of 6 samples collected at McAllister Creek RM 2.5 (Interstate 5) in 1994-1995 .																
Data from the Dept. of Ecology EIM database for the Project BEDI0005 (MCALLISTER CREEK WATER QUALITY SURVEY) station MC41 (MCALLISTER CREEK (MC41)) shows the geometric mean of 33.5275951972657 does not exceed the criterion and that 0 % of the samples does not exceed the percentile criterion from 4 samples collected during 2001.																
Data from the Dept. of Ecology EIM database for the Project BEDI0005 (MCALLISTER CREEK WATER QUALITY SURVEY) station MC30 (MCALLISTER CREEK (MC30)) shows the geometric mean of 93.407840767339 does not exceed the criterion and that 34.6153846153846 % of the samples exceeds the percentile criterion from 26 samples collected during 2001.																
	11	7531	5	Y	MCALLISTER CREEK					LD26OX	3.548	18N	01E	37	Fecal Coliform	Water
Data Collected by the Nisqually Tribe (submitted by Sue Davis on 10/30/97) show a geometric mean of 201 org/100mL with 53% exceeding te percentile criterion out of 15 samples collected at McAllister Creek RM 3.1 during 1995-1996.																
Data from the Dept. of Ecology EIM database for the Project BEDI0005 (MCALLISTER CREEK WATER QUALITY SURVEY) station MC34 (MCALLISTER CREEK (MC34)) shows the geometric mean of 82.9214533349075 does not exceed the criterion and that 28.5714285714286 % of the samples exceeds the percentile criterion from 7 samples collected during 2001.																
Data from the Dept. of Ecology EIM database for the Project BEDI0005 (MCALLISTER CREEK WATER QUALITY SURVEY) station MC32 (MCALLISTER CREEK (MC32)) shows the geometric mean of 74.0869209206688 does not exceed the criterion and that 33.3333333333333 % of the samples exceeds the percentile criterion from 9 samples collected during 2001.																

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11	39746	5	N	NISQUALLY REACH/DRAYTON PASSAGE Department of Health unpublished data collected from station NISQUALLY REACH-224 show a geometric mean of 22 cfu/100mL and 30% of samples exceed the percentile criterion with the last sample collected on 3-Dec-2001. Department of Health unpublished data collected from station NISQUALLY REACH-234 show a geometric mean of 34 cfu/100mL and 50% of samples exceed the percentile criterion with the last sample collected on 3-Dec-2001.	390KRD	47122A7J2	47.095	122.725	Fecal Coliform		Water	
11	39748	5	N	NISQUALLY REACH/DRAYTON PASSAGE Department of Health unpublished data collected from station NISQUALLY REACH-235 show a geometric mean of 16 cfu/100mL and 16.6666666666667% of samples exceed the percentile criterion with the last sample collected on 3-Dec-2001.	390KRD	47122A6J9	47.095	122.695	Fecal Coliform		Water	
11	39749	5	N	NISQUALLY REACH/DRAYTON PASSAGE Department of Health unpublished data collected from station NISQUALLY REACH-236 show a geometric mean of 14 cfu/100mL and 16.6666666666667% of samples exceed the percentile criterion with the last sample collected on 3-Dec-2001.	390KRD	47122A7J0	47.095	122.705	Fecal Coliform		Water	
11	39750	5	N	NISQUALLY REACH/DRAYTON PASSAGE Department of Health unpublished data collected from station NISQUALLY REACH-245 show a geometric mean of 6 cfu/100mL and 13.3333333333333% of samples exceed the percentile criterion with the last sample collected on 3-Dec-2001.	390KRD	47122B7B1	47.115	122.715	Fecal Coliform		Water	
11	39752	5	N	NISQUALLY REACH/DRAYTON PASSAGE Department of Health unpublished data collected from station NISQUALLY REACH-247 show a geometric mean of 6 cfu/100mL and 16.6666666666667% of samples exceed the percentile criterion with the last sample collected on 3-Dec-2001.	390KRD	47122B6B8	47.115	122.685	Fecal Coliform		Water	
11	7533	5	Y	OHOP CREEK Nisqually Tribal data (submitted by Anthony Whiley 2/16/96) show numerous high levels from samples collected at the mouth by the between 1991and 1995. Nisqually River Education Project station Ohop Creek@Kjelstad Rd. data show a geometric mean of 69 cfu/100mL from 2 samples collected in 2001. Nisqually River Education Project station Ohop Creek@Kjelstad Rd. data show a geometric mean of 28 cfu/100mL from 2 samples collected in 2002.	MW64EU	0	16N	03E	25	Fecal Coliform	Fecal coliform data were previously submitted only in hardcopy form. The water segment is listed as Category 5 based on the 1998 assessment.	Water
11	6360	5	Y	OHOP LAKE Phase I State Clean Lakes Restoration Project: Problems encountered - impaired salmon rearing habitat, increasing algal blooms, excessive macrophyte growth. Final report completed in 5/97. Sumioka and Dion (1985) show a summer epilimnetic total phosphorus concentration of 59 ug/L from samples collected in 1981 which exceeds the water quality standards nutrient criterion for the Puget Lowlands Ecoregion.	688HMI	16N	04E	10	Total Phosphorus		Water	